

***Dyschirius crinifer* sp. nov. and *Dyschirius hipponensis* (Pic, 1894) from North Africa (Coleoptera, Carabidae, Scaritinae)**

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***Dyschirius crinifer* sp. nov. and *Dyschirius hipponensis* (Pic, 1894) from North Africa (Coleoptera Carabidae, Scaritinae).** – *Dyschirius crinifer* sp. nov. from North Africa is described, and the North African *Dyschirius hipponensis* (Pic, 1894) is redescribed. Main diagnostic differences are illustrated and the species are arranged into the keys of Müller (1922) and Antoine (1955).

**Key-words:** Coleoptera - Carabidae - Scaritinae - taxonomy - Algeria.

Members of the speciose genus *Dyschirius* bear characteristic patterns of setiferous punctures (BOUSQUET, 1988; LINDROTH, 1961). On the elytra these punctures can be divided into the following groups: - one setigerous punctures present at base; - three discal setigerous punctures located on the third interval or in the adjoining striae; - two subapical setigerous punctures at the apex within the 8th stria; - three subhumeral setigerous punctures. These punctures can be reduced interspecifically as pairs or completely as a group. Although puncture pairs or single punctures may certainly be missing intraspecifically, they have a relatively high degree of constancy and are therefore of great taxonomic value. In addition, two other groups can be described, which have not been particularly mentioned taxonomically: - up to three lateral setigerous punctures, separated by a wider interval from the subhumeral setigerous pores (umbilical series); - more than three setigerous punctures located on the third interval of the elytra or/and on the other odd intervals (row of punctures).

Up to now only a few species with more than three punctures on the odd intervals have been described:

from North America:

- *Dyschirius setosus* LeConte, 1857 (= *D. alternatus* Hatch, 1949), 3rd, 5th, 7th interval with a row of setigerous punctures
- *Dischirius pilosus* LeConte, 1857 (= *D. hispidus* LeConte, 1863)

- *Dyschirius comatus* Bousquet, 1988, in both of these species 1st, 3rd, 5th, 7th interval with a row of punctures  
from India:
- *Dyschirius mahratta* Andrewes, 1929, 3rd and 5th interval with a row of punctures
- *Dyschirius stellula* Andrewes, 1936, interval 3 with 5 punctures  
from North Africa:
- *Dyschirius hipponensis* Pic, 1894, 3rd, 5th and 7th interval with a row of punctures

Among the unidentified material of African Scaritinae deposited in the Muséum d'Histoire naturelle, Genève (MHNG), there were 11 specimens of a second *Dyschirius* species bearing rows of setigerous punctures on the odd intervals of the elytra.

### ***Dyschirius crinifer* sp. nov.**

Type Material: Holotype: ♂, Algeria: Gde Kabylie, Forêt d'Akfadou, 9 km W Adekar, 1300 m, 17.V.88, leg. Besuchet, Löbl, Burckhardt (in MHNG).

Paratypes: 2 ♂, 3 ♀ same data as holotype; 1 ♂, 4 ♀ same data as holotype, but 8 km E Adekar, 15.V.88 (in MHNG and coll. of author).

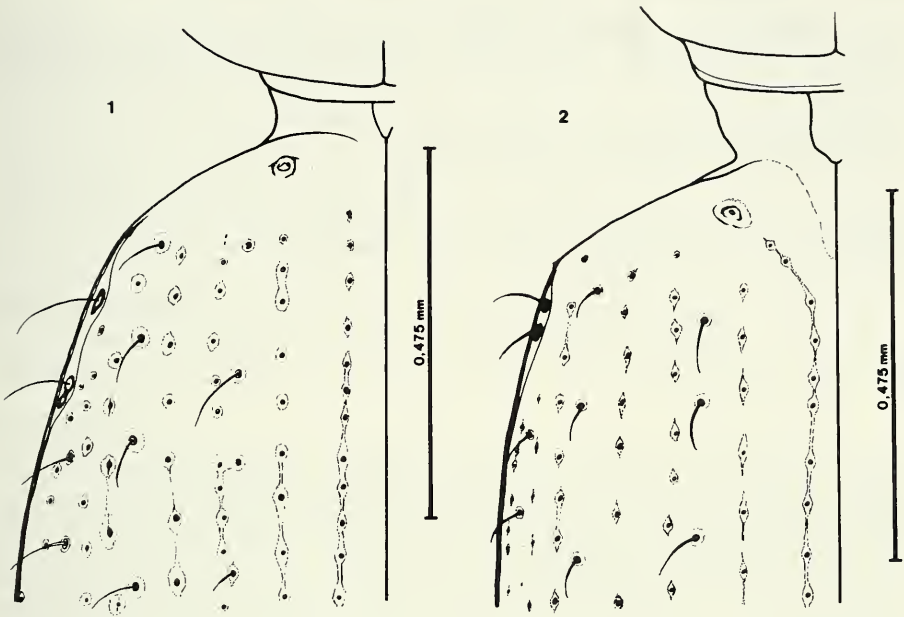
**M e a s u r e m e n t s :** Length 2.86 - 3.24 mm ( $\bar{x}$  = 2.99 mm\*), width 0.93 - 1.08 mm ( $\bar{x}$  = 0.98 mm\*), ratio length/width of pronotum 0.97 - 1.06 ( $\bar{x}$  = 1.02\*), ratio length/width of elytra 1.54 - 1.66 ( $\bar{x}$  = 1.62\*); (\* n = 11).

**C o l o u r :** Black with piceous lustre, surface shiny; mandibles and palpi brown, antennae dark brown, basal segment of antennae yellowish-brown, following three segments pale at base. Ventral surface piceous black.

**H e a d :** Anterior margin of clypeus without median tooth, straight and bordered distinctly, separated from frons by deep straight transverse suture, broad hump in front of transverse suture increasing evenly from clypeal margin and falling steeply in last quarter to transverse suture. Frons vaulted with scattered, very finely stuck punctures.

**P r o n o t u m :** Globose, as long as wide, maximum width at end of 2nd third, narrowing almost straightly from there to anterior setigerous puncture. Lateral margin stops at end of 1st third and is more fine behind anterior setigerous puncture than in front of. Median line fine but distinct. With few transverse wrinkles on sides, very finely stuck punctures on entire surface. Foveae in furrow of basal margin rounded.

**E l y t r o n** (Fig. 1): Anterior half of elytron flattened, posterior half evenly vaulted. Oval, lateral margin evenly rounded from humerus to apical setigerous punctures. Base unmarginated, basal granula absent; humerus indistinct, almost completely rounded, denticulation at humerus absent; basal setigerous puncture isolated, situated in projected extension of 2nd stria (holotype) or 3rd interval (in some paratypes). Two subhumeral setigerous punctures, 3rd absent, one preapical setigerous pore. First stria straight, not extended towards basal setigerous pore; punctures in first 2-3 rows formed as striae due to more-or-less distinct impressions, other striae appearing as rows of



FIGS 1-2

Left elytron, shoulder. The impressions around the punctures are symbolized by dotted lines. 1. *D. crinifer* sp. nov.; 2. *D. hipponensis* Pic.

punctures, striae fade to apex, 7th stria consisting of only few punctures covering one third of elytron, arrangement of punctures somewhat irregular. Eight to nine prominent discal setigerous punctures on interval 3, approaching 3rd stria, 8-9 in middle of interval 5, 4 on interval 7.

**Prothibia:** Upper spine turned evenly outward, movable spur slightly curved, much smaller and thinner than spine. Preapical outer denticle well developed and sharp, 2nd much smaller, not sharp but clearly visible.

**Aedeagus:** See Fig. 3.

**Habitat:** All specimens were extracted from oak leaf litter in May, one near the wood's edge and one in a clearing with large oaks below a brook. Altitude 1300 m.

**Relationship:** The species appears to be closely related to *D. hipponensis* (Pic, 1894) with which it shares the elytral punctation.

In order to point out the relevant characters of *D. hipponensis* Pic and to show the differences between the two species, *D. hipponensis* Pic is redescribed.

**Dyschirius hipponensis** Pic, 1894

Material examined: One ♂, labelled (handwritten): *Dyschirius hipponensis* Pic, They dedid 1912 and (printed): St. Charles, Algerie, A. They (in Muséum National d'Histoire naturelle, Paris, MNHP).

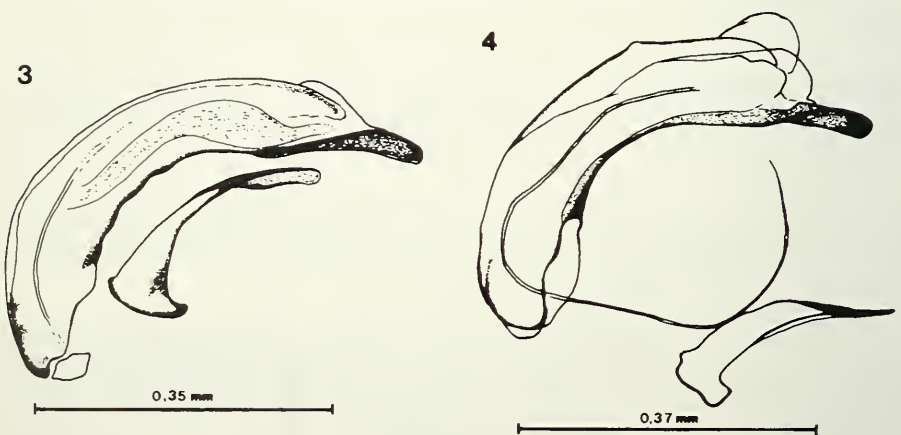
Measurements: Length 2.52 mm, width 0.89 mm, ratio length/width of pronotum 1.00, ratio length/width of elytra 1.51.

Colour: Cherry-reddish to red-brown, shiny, mandibles and palpi lighth reddish-brown, antennae reddish-brown like whole body, but with metallic lustre, 1st and 2nd segment of antennae as well as base of 3rd yellowish. Ventral surface red-brown.

Head: Anterior margin of clypeus without median tooth, straight and very finely bordered, separated from frons by a straight transversal suture, broad curvature in front to the transversal ridge, not hump-like; frons vaulted with scattered, very finely sticked punctures.

Pronotum: Strongly globose, as long as wide, maximum width at end of 2nd third. Sides evenly rounded from anterior angles to posterior setigerous puncture. Lateral margin stops at end of first third, equally distinct in back of and in front of anterior setigerous pore. Median line distinct throughout. Sides with few fine cross wrinkles, entire surface very finely sticked. Foveae in furrow of basal margin elongated.

Elytron (Fig. 2): Evenly vaulted from front to back. Oval, evenly rounded from humerus to apical setigerous punctures. Base without margin, basal granula absent; humerus pronounced with small tooth visible from above; basal pore isolated, located in extension of 2nd stria. Two subhumeral punctures, rear one absent, one preapical setigerous puncture. Base at suture somewhat depressed. Striae deep and pronounced, first curves outward at base and runs directly toward basal pore; punctures of first 2-3 rows forming striae by deeper impressions, other striae appearing more or



FIGS 3-4

Aedeagus (left lateral view): 3. *D. crinifer* sp. nov.; 4. *D. hipponensis* Pic

less like rows of punctures, all striae fainter but still distinct toward apex, 7th covers two-thirds of elytron length, punctures arranged more or less irregularly. Five prominent discal setigerous punctures in the middle of interval 3; 6 on interval 5 approaching 5th stria; 3 on interval 7.

**P r o t i b i a :** Upper spine evenly curved outward, movable spur much thinner and shorter than spine. Preapical outer denticle sharp and well-developed, 2nd intimated but still visible.

**A e d e a g u s :** As shown in Fig. 4.

**D i s t r i b u t i o n :** Algeria. Recorded from: Bone (lat. Hippo, -nis / today: Annaba), banks of the river Seybouse after a flood (type). - Saint Charles (today: Ramdane Djamal) south of Skikda.

**H a b i t a t :** Unknown, the type was collected in February.

## DISCUSSION

The type of *Dyschirius hipponensis* Pic has not been located although it should be deposited in the MNHP. Therefore the redescription is based on another specimen from Peyerhimmhoff's collection (also MNHP). Comparing all specimens (1 and 11, respectively) with the original relatively comprehensive description of PIC (1894), the following may be stated: Several diagnostic characters are common for both species and agree with the description. Other characters (e.g. humeri, colour, size) can only be found in the single specimen from Saint Charles, but not in the 11 new specimens. Pic's description does not give any character which is not found in the single specimen from Saint Charles. Thus it is assumed that it is conspecific with the type of *Dyschirius hipponensis* Pic.

It is to be mentioned that Bone is 80 km apart from Saint Charles, while the localities at which the new species was found are about 300 km to the west.

The type of *D. hipponensis* Pic was found after the river had flooded and was probably washed to the site from higher areas. This permits the assumption that the two species have similar habitats (litter and humus layers) in which numerous sensory hairs are of great benefit. Paralleles are found for example in the related genus *Reicheia* Saulcy. Representatives of this genus, which also show characteristic hair patterns on the elytrae, were found in Algeria and Tunisia at about the same altitude as *D. criniifer* sp. nov. in leaf and humus litter and under large stones (JEANNEL, 1957).

NORMAND (1933, 1938 a, b) does not mention *D. hipponensis*. Only BEDEL (1895) and MÜLLER (1922) quote PIC (1894) and include the description of *D. hipponensis* verbatim at the end of their key. Neither of the authors saw the species ("mihi invisae"). In BEDEL (1895), *D. hipponensis* Pic is distinguished from other species (p. 45) by the character "with long, protruding hairs on the disk and on the sides".

For the western Palaearctic species, the only useful key is that of MÜLLER (1922: 38). Both treated species may be easily placed into this key within a new (7th) group (The addition to the key is given in German, because the original key is written in German):

- 2 Halsschildseiten vollständig gerandet ..... 3  
 – Halsschildseiten nur vorn oder bis zur Mitte gerandet, 2-3 Dorsalpunkte,  
 3 Posthumeralpunkte. .... 6. Gruppe (S. 50)  
 – Halsschildseitenrand über den vorderen, aber nicht bis zum hinteren  
 Borstenpunkt gerandet. Mit vielen langen, abstehenden Borsten auf den  
 Elytren. 2 Posthumeralpunkte ..... 7. Gruppe

#### 7. Gruppe

(Clypeus ohne Mittelzahn. Halsschildseiten über den vorderen, aber nicht bis zum hinteren Borstenpunkt gerandet. Flügeldecken mit basalem Porenpunkt, an der Basis ungerandet. Mehr als 3 Dorsalpunkte, 2 Subhumeralpunkte, 1 Praeapikalpunkt. Oberseite nicht chagriniert).

- 1 Schultern ausgeprägt. 1. Flügeldeckenstreifen biegt vorn nach außen und zielt auf den basalen Porenpunkt. Der 7. Flügeldeckenstreifen nimmt 2 Drittel der Flügeldeckenlänge ein. .... *D. hipponensis* Pic  
 – Schultern eingezogen, fast vollständig verrundet. 1. Flügeldeckenstreifen vorn gerade, zielt nicht auf den basalen Porenpunkt. Der 7. Flügeldeckenstreifen nimmt nur ein Drittel der Flügeldeckenlänge ein. ....  
 ..... *D. crinifer* sp. nov.

Another key, provided by ANTOINE (1955), describes the *Dyschirius* spp. of Morocco and neighboring regions in North West Africa. The two species can also be placed into this key by creating a new group, which is to be placed between the *rufoaeneus* and the *globosus* group. Following keynumber 18 (ANTOINE, 1955: 70), the new group can be characterized by the lateral border of pronotum and in bearing more than 3 discal setigerous punctures.

#### ACKNOWLEDGEMENTS

I would like to express my heartfelt thanks to Dr. I. Löbl (MHNG), who gave me the opportunity to examine the specimens and for reading of the manuscript. He also has answered all of my questions regarding geographical items as well as the habitat of the new species. Thanks are also due to Dr. T. Deuve (MNHP) for the loan of the *D. hippouensis* Pic.

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